



**Maryland Department of the Environment**

# Industrial Stormwater General Permit Coverage for Municipal Facilities

**Maryland Phase II  
MS4 Forum**



# Individual vs General Permit

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- **Individual Permits** are for unique situations which require review of potential pollutants and evaluation vs water quality standards to determine specific limits.
- **General Permits** are for categories of dischargers that are similar, that based on evaluation can meet water quality standards with a common set of controls.



# Stormwater Permits

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- 1173 Operators - 12-SW Industrial Stormwater
- 312 Operators - 10-MM Mineral Mine, Asphalt and Concrete Plants
- 41 Operators - 11-CM Coal Mine
- 187 Operators - 10-MA Marina
- 183 Operators - Individual Permit
  - May include stormwater with its discharge.





## SIC – Defines Who Needs Permit

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**The Federal Regulations use OSHA Standard Industrial Classification (SIC) to determine which facilities require permits.**

**[https://www.osha.gov/pls/imis/sic\\_manual.html](https://www.osha.gov/pls/imis/sic_manual.html)**

**The 40 CFR 122.26(b)(14)(i)-(xi) defines which are required to have coverage.**

**These are listed in our newer permits, example Appendix A of the 12-SW.**



**Example 1:** Establishments primarily engaged in manufacturing plastics bottles have SIC 3085.

Appendix A has this SIC included under “SECTOR Y:  
RUBBER, MISCELLANEOUS PLASTIC  
PRODUCTS, AND MISCELLANEOUS  
MANUFACTURING INDUSTRIES”

Therefore this manufacturer is required to have stormwater coverage based on their SIC.



## SIC – Examples

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**Example 2:** Establishments primarily engaged in general automotive repair for general public have SIC 7538.

This SIC isn't in Appendix A.

Therefore this operator isn't required to have stormwater coverage based on their SIC.





# Industrial Activity Sectors

<b>Sector A</b> – Timber Products	<b>Sector P</b> – Land Transportation
<b>Sector B</b> – Paper and Allied Products Manufacturing	<b>Sector Q</b> – Water Transportation
<b>Sector C</b> – Chemical and Allied Products Manufacturing	<b>Sector R</b> – Ship and Boat Building or Repairing Yards
<b>Sector D</b> – Asphalt Paving and Roofing Materials Manufactures and Lubricant Manufacturers	<b>Sector S</b> – Air Transportation Facilities
<b>Sector E</b> – Glass, Clay, Cement, Concrete, and Gypsum Product Manufacturing	<b>Sector T</b> – Treatment Works
<b>Sector F</b> – Primary Metals	<b>Sector U</b> – Food and Kindred Products
<b>Sector G</b> – <b>METAL MINING (ORE MINING AND DRESSING)</b>	<b>Sector V</b> – Textile Mills, Apparel, and other Fabric Products Manufacturing
<b>Sector H</b> – <b>COAL MINING</b>	<b>Sector W</b> – Furniture and Fixtures
<b>Sector I</b> – Oil and Gas Extraction and Refining	<b>Sector X</b> – Printing and Publishing
<b>Sector J</b> – <b>MINERAL MINING AND DRESSING</b>	<b>Sector Y</b> – Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries
<b>Sector K</b> – Hazardous Waste Treatment Storage or Disposal	<b>Sector Z</b> – Leather Tanning and Finishing
<b>Sector L</b> – Landfills and Land Application Sites	<b>Sector AA</b> – Fabricated Metal Products
<b>Sector M</b> – Automobile Salvage Yards	<b>Sector AB</b> – Transportation Equipment, Industrial or Commercial Machinery
<b>Sector N</b> – Scrap Recycling Facilities	<b>Sector AC</b> – Electronic, Electrical, Photographic and Optical Goods
<b>Sector O</b> – Steam Electric Generating Facilities	<b>Sector AD</b> –Designated by the Department





# Sector “AD.a”

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## **Example 3: DEPARTMENT OF PUBLIC WORKS AND HIGHWAY MAINTENANCE FACILITIES**

SIC for Department of Public Works is “DPW” and Highway Maintenance is “HM”

Specific for vehicle and equipment maintenance shops (vehicle and equipment rehabilitation, mechanical repairs, painting, fueling and lubrication), equipment cleaning operations and salt storage for road deicing activities.

Facilities where no vehicle repair is occurring are not required to apply for coverage.

Coverage not required unless the facility is notified by the Department that coverage is needed.







# Sector “AD.b”

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## **Example 3: SCHOOL BUS MAINTENANCE FACILITIES**

SIC is 82xx

Specific for vehicle and equipment maintenance shops (vehicle and equipment rehabilitation, mechanical repairs, painting, fueling and lubrication), and equipment cleaning operations.

Facilities where no vehicle repair is occurring are not required to apply for coverage.

Coverage not required unless the facility is notified by the Department that coverage is needed.





# Other Municipal Facilities?

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**Landfills**

**Hazardous Waste Facilities**

**Recycling Facilities**

**Transfer Stations**

**Natural Wood Waste**

**Composting Facilities**

**Wastewater Treatment Plants (> than 1MGD)**

**Sand or gravel Pits**

**Airports or Marinas**





# Permit Requirements

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- *Select, install, and implement control measures*
- *Minimize stormwater exposure*
- *Good housekeeping*
- *Maintenance of industrial equipment and stormwater controls*
- *Develop spill prevention and response procedures*
- *Stabilize disturbed areas with erosion and sediment controls*
- *Management of runoff (reuse, divert, infiltrate, reduce)*



# More Permit Requirements

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- *Cover or enclose salt storage piles or piles containing salt*
- *Sector-Specific non-numeric effluent limits (check Appendix D)*
- *Employee training*
- *Non-Stormwater discharges must be eliminated, if not authorized by this permit*
- *Waste, garbage and floatable debris must not be discharged to receiving waters*
- *Minimize dust generation and vehicle tracking of industrial materials*



## NOI Requires - Chesapeake Bay Specific

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IF your facility meets ALL of these criteria :

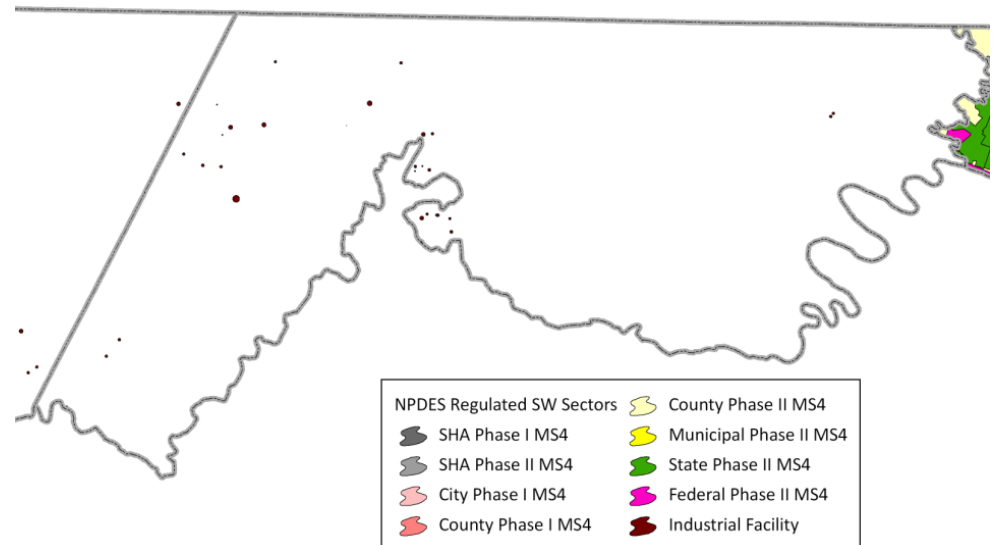
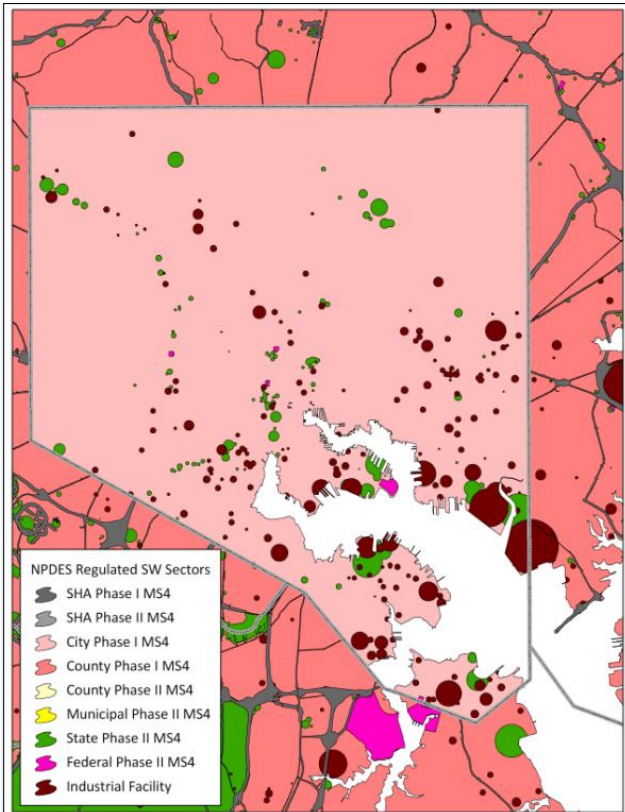
- within the Chesapeake Bay Watershed;
- is 5 acres or greater in size;
- if “any portion of your facility is located within a Phase I or Phase II municipal separate storm sewer system (MS4) jurisdiction”; and
- is not owned by or leased from an entity that is permitted as an MS4.

THEN you must provide:

- the total impervious surface area (square feet),
- the untreated impervious surface area (in square feet) and
- the impervious surface area subject to 20% restoration requirement (in acres).



# Overlay of MS4 with Industrial



# Restoration Options

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- Accounting Guidance Practices (Draft or 2014)
  - Most Popular Examples: Street Sweeping, Replacing pavement with green space or Retrofitting Existing Stormwater Ponds.
- Design Manual or Proprietary Practices
  - Most Popular Examples: Bioretention, Sand Filters
  - Other Examples: Green Roof, Cisterns
- Equivalent control measures (a reduction of 5.4 lbs total nitrogen (TN) per year is equivalent to restoration of one acre of impervious surface area.
  - Controls required by the permit for erosion and sediment control, or by the reduced use of fertilizer.
  - Controls needed to achieve benchmarks for nitrogen (if applicable)
  - Reduce an existing TN load allocation (important for WWTP)
- Off-Site (not easy, unless the permittee owns offsite)



# Documentation

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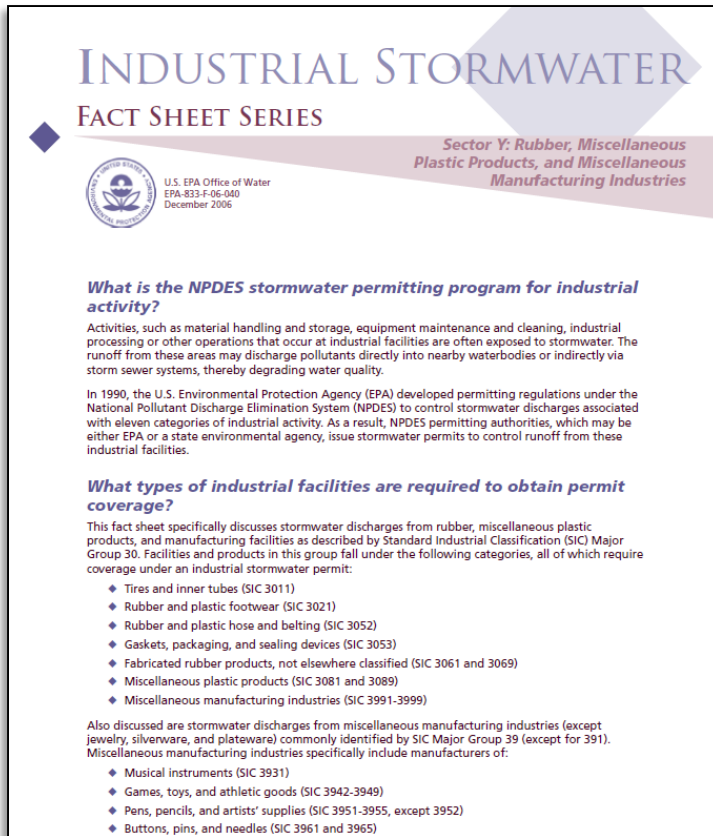
*You must document your plans in a Stormwater Pollution Prevention Plan (SWPPP) and submit to MDE prior to getting covered.*

You must maintain your SWPPP on-site, updating when necessary as described in the permit.





# Guidance for Operator



➤ *Permit is over 100 Pages.*

➤ *Requirements are very specific to certain industries.*

➤ *Guidance is available on our website **to help operators.***



# Monitoring Requirements

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Yearly Evaluation

Benchmark Monitoring

Visual Monitoring





# Comprehensive Evaluation

Do a Comprehensive Site Compliance Evaluation **once a year,**  
**and keep it onsite with SWPPP.**

Check for and document:

- Industrial materials, residue or trash
- Leaks or spills within the past three years;
- Offsite tracking where vehicles enter or exit the site;
- Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas;
- Evidence of pollutants entering the drainage or pollutants discharging to surface waters at facility outfalls;
- The condition of and around any outfall, including flow dissipation measures to prevent scouring;
- Training performed, inspections completed, maintenance performed, quarterly visual examinations, and effective operation of BMPs and
- Visual and analytical monitoring results from the past year.

**EPA Provides a Template that may be used, which  
is on our website.**



# Sector Benchmarks

1. Agricultural Chemicals
2. Industrial Inorganic Chemicals
3. Soaps, Detergents, Cosmetics and Perfumes
4. Landfills and Land Application Sites
5. Automobile Salvage Yards
6. Scrap Recycling & Waste Recycling Facilities (except source separated)
7. Grain Mill Products
8. Fats and Oils Products
9. Fabricated Metal Products

Table 5 - Sector M Benchmarks (Automobile Salvage Yards)

PARAMETER	Benchmark	Units	Frequency	Sample Type
Total Suspended Solids (TSS)	100	mg/L	1/quarter	Grab
Total Aluminum	0.75	mg/L	1/quarter	Grab
Total Iron	1.0	mg/L	1/quarter	Grab
Total Lead <sup>1</sup>	0.082	mg/L	1/quarter	Grab

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, you must determine the hardness of the receiving water per Appendix C.

**AFTER 4 QUARTERS, IF YOU HAVE MET  
BENCHMARKS CONTACT COMPLIANCE TO  
DISCONTINUE**

# Visual Monitoring

## Quarterly Samples:

1. No lab required.
2. This form is in Appendix A of the permit.
3. Important to keep records with SWPPP.

General Discharge Permit No. 12-SW  
Appendix B: Page 2 of 3

**Quarterly Visual Monitoring Form**  
*Fill out a separate form for each outfall sampled.*

Sample Location		
Quarter / Year:	Date / Time Collected:	Date / Time Examined:
Qualifying Storm Event?	Yes      No	Runoff Source:      Rainfall      Snowmelt
Collector's Name & Title		
Examiner's Name & Title		
Parameter	Parameter Description	Parameter Characteristics
1. Color	Does the stormwater appear to have any color? Yes      No (Clear)	If Yes, describe: Yellow   Brown   Red   Gray Other:
2. Clarity	Is the stormwater clear? Yes      No	If not clear, which of the following best describes the clarity of the stormwater? Suspended Solids   Milky/Cloudy   Opaque Other:
3. Oil Sheen	Can you see a rainbow effect or sheen on the water surface? Yes      No	Which best describes the sheen? Rainbow sheen   Floating oil globules Other:
4. Odor	Does the sample have an odor? Yes      No	If Yes, describe: Chemical   Musty   Rotten Eggs Sewage   Sour Milk   Oil/Petroleum Other:
5. Floating Solids	Is there anything on the surface of the sample? Yes      No	If Yes, describe: Suds   Oily Film   Garbage Sewage   Water Fowl Excrement Other:
6. Suspended Solids	Is there anything suspended in the sample? Yes      No	Describe:
<b>***Leave sample undisturbed for 30 minutes.***</b>		
7. Settled Solids	Is there anything settled on the bottom of the sample? Yes      No	Describe: (note type, size and material after sample is not disturbed for 30 minutes)
8. Foam	Does foam or material form on the top of the sample surface if you shake it? Yes      No	Describe:
9. If there are any visible indicators of pollution identify (1) where the pollution may come from and (2) any corrective actions taken.		
Stormwater Collector's Signature and Date:		
Stormwater Examiner's Signature and Date:		
<i>Note – Sample should be collected and analyzed in a colorless glass or plastic bottle.</i>		



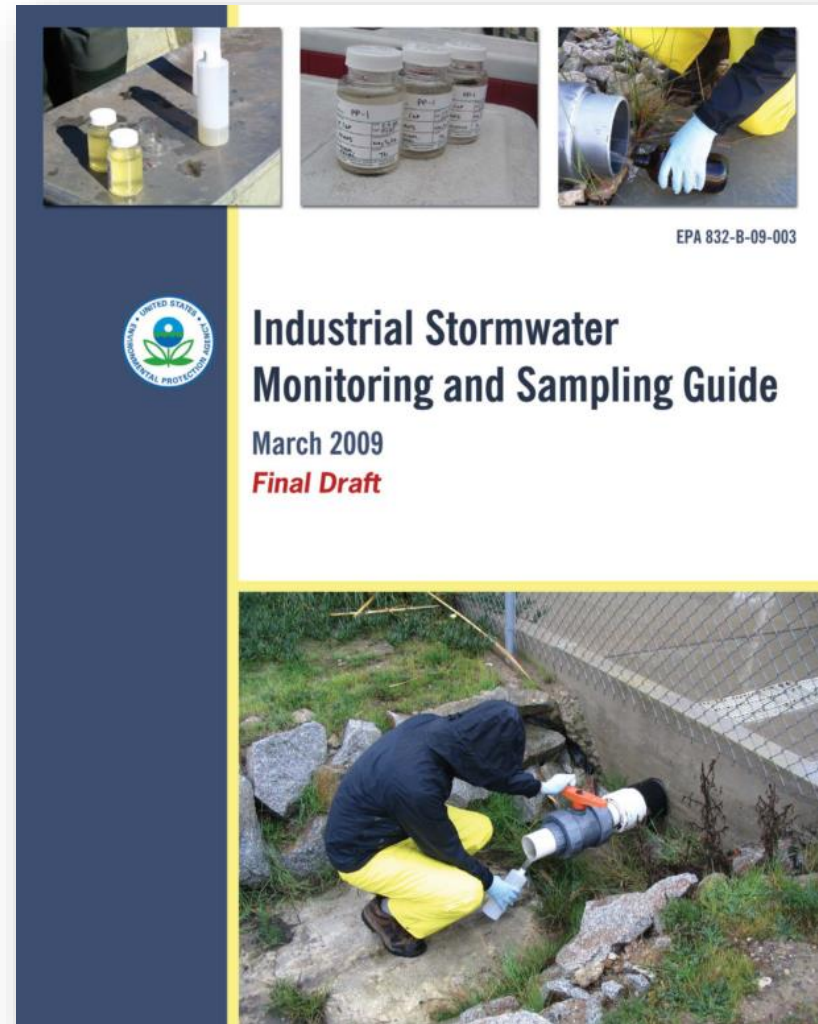
# Monitoring Exceptions

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- Facility is Inactive and Unstaffed
- Substantially Identical Outfalls
- No Discharge from Facility

# Monitoring Guidance

EPA's Guidance Document for monitoring and sampling is provided by the Department and is also available on the Web.





# Corrective Actions

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When something is wrong, you must address it and document what you did.

- Within **24 hours** of discovery of any condition listed, you must document discovery.
- Within **14 days** of discovery of any condition listed, you must document your corrective action.
- Any **modifications** to your control measures must be made before the next storm event if possible, or as soon as practicable following that storm event.
- In the event that a deficiency cannot be addressed fully within 30 days, you must **call the Department Compliance program** and make the Department aware of the situation.








# Search Tool for Facilities

## Wastewater Permits Interactive Search Portal



THE DEPARTMENT OF THE  
**ENVIRONMENT**

Maryland.gov Phone Directory State Agencies Online Services

Search

HOME MARYLANDER BUSINESS RESEARCH CENTER NEWSROOM

email friend print page

Water Programs

Wastewater Permits Program

Wastewater Permits Interactive Search Portal

Enter or select search values in one or more text box or dropdown search fields below

Please note: Wild card characters are not supported in your search values but partial values are  
It may take around 30 seconds to return results

Facility Name: Address: City:

Zip Code: State Num.: 12sr NPDES Number:

County: No Filter Watershed: No Filter

Type: No Filter Status: No Filter

Search

Reset

Export To Excel

[Click here for field information \(PDF\)](#)

284 facilities found

	Facility Name	Address	City	Zip Code	County	State Num.	NPDES Num.	Status
<a href="#">More Info.</a>	A-A Recycle & Sand, Inc	8217 Baltimore Annapolis Blvd	Pasadena	21122	Anne Arundel	12SR1910	MDR001910	Issued
<a href="#">More Info.</a>	AA1 Corporation	124 Industry Lane	Cockeysville	21030	Baltimore	12SR0017	MDR000017	Issued
<a href="#">More Info.</a>	ABC Distribution LLC	6401 Aaron Lane	Clinton	20735	Prince George's	12SR3062	MDR003062	Received
<a href="#">More Info.</a>	Abf Freight System, Inc.	6720 Washington Blvd	Elkridge	21075	Howard	12SR0559	MDR000559	Issued
<a href="#">More Info.</a>	Acme Biomass Reduction, Inc	21601 New Hampshire Ave	Brookeville	20833	Montgomery	12SR3052	MDR003052	Received



# Registered...now what?

## Keep in a binder at your facility:

- Registration letter (you need to send to MS4)
- Copy of Permit
- SWPPP (updated)
- Records of Quarterly Visual Inspections
- Training Records
- Benchmark Monitoring Records
- Comprehensive Annual Inspection Records
- Maintenance Records (Oil/Water Separator or other devices)
- Corrective Action Records



# When to Notify MDE

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1. Corrective Actions
2. Monitoring Reports for Benchmarks (DMRs)
3. Restoration update at end of year 4 for all registrations beginning with 12-SR
4. Illicit discharges.





# When an Inspector shows up...

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- Be prepared to present your SWPPP.
- Review your records with inspector.
- Staff may randomly be asked questions.
- Provide access to all stormwater controls.
- Explain any problems and what you have done to address them.



# Questions / Concerns?

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